

ABSTRACT

The invention herein is a seal to seal a rotating shaft to housing. The seal has a stator and a rotor, magnetically and mechanically coupled. The mechanical couple is provided through an interlocking annular groove provided on one component and a flange face on the other component. The mechanical couple allows the two components to become interconnected once a predetermined range of free movement of the rotor is exceeded. The stator and rotor are also mechanically coupled through a plurality of magnets positioned on either the stator or rotor. After the predetermined range is exceeded, the rotor slips along the shaft while the stator remains fixed, maintaining a seal in during axial movement of the rotating shaft.

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